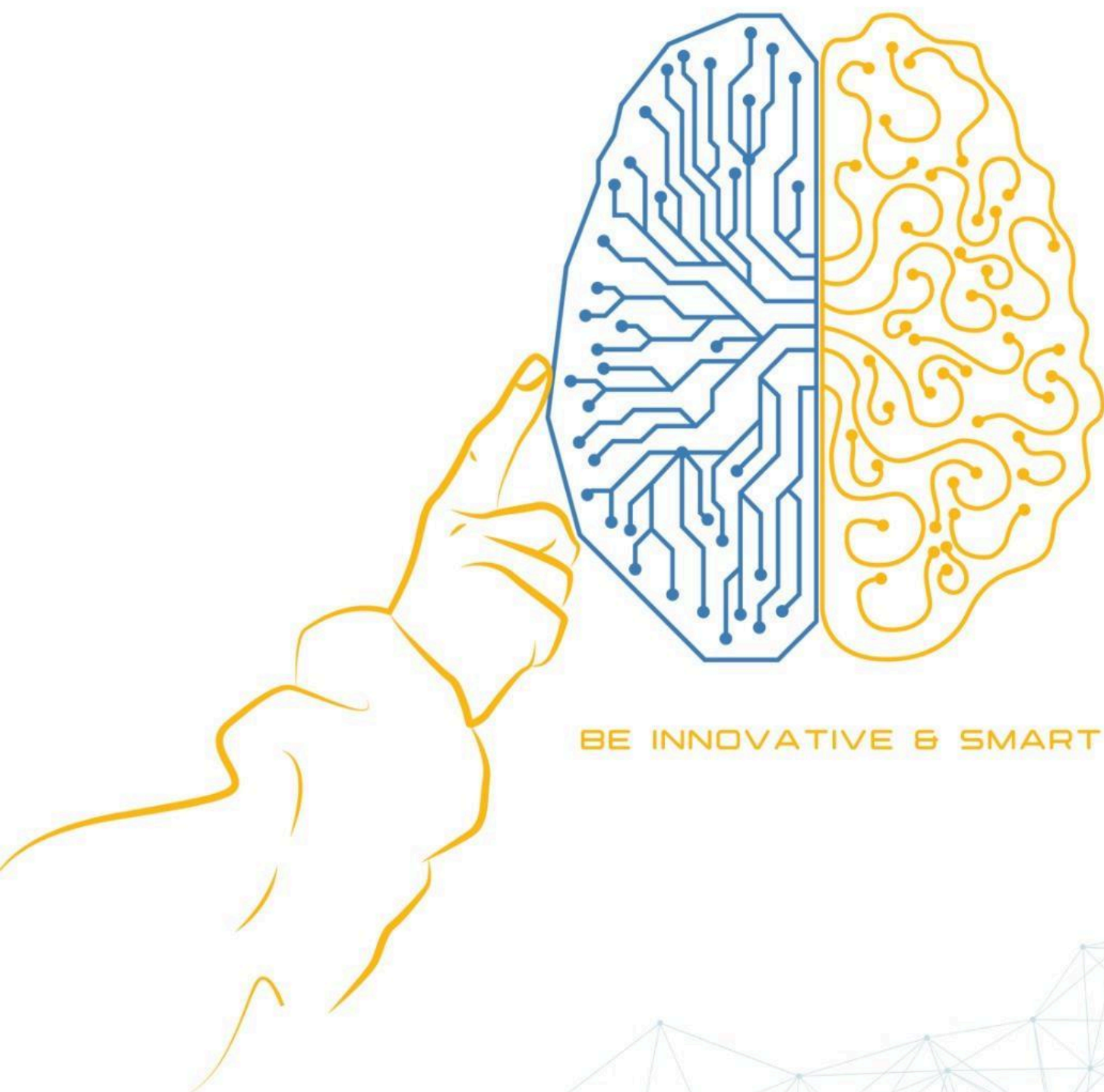NATIONAL
ARTIFICIAL
INTELLIGENCE
POLICY 2024

BE INNOVATIVE & SMART

MINISTRY OF POSTS, TELECOMMUNICATIONS AND INFORMATION TECHNOLOGY
GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH

ICT
DIVISION
FUTURE IS HERE

Acknowledgement

In drafting this policy, we are grateful for the vision and valuable guidance by the Honorable Prime Minister Sheikh Hasina. We express our gratitude to the Honorable ICT Advisor to the Prime Minister, Mr. Sajeeb Wazed, for guiding us from the beginning of the draft to prioritize the ethical application of AI as we move towards achieving a Smart Bangladesh by 2041. We are also grateful to the various Ministries, government agencies, industry, academia, and private sector entities for their insights.

The collaborative efforts of organizations such as the Information and Communication Technology (ICT) Division and experts' inputs from the Smart Bangladesh Network have been instrumental in curating this draft policy document as well.

Zunaid Ahmed Palak, MP
State Minister,
Ministry of Posts, Telecommunications and Information Technology
Government of the People's Republic of Bangladesh

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Preamble:

In recognition of the transformative potential of Artificial Intelligence (AI) and its implications for economic growth, societal progress, and national security, the Government of Bangladesh hereby promulgates this AI Policy 2024. This policy seeks to harness the benefits of AI while mitigating its risks, fostering innovation, and ensuring that AI technologies serve the best interests of the citizens and the nation as a whole.

National Artificial Intelligence Policy 2024

1. Introduction

In the dynamic era of Artificial Intelligence, Bangladesh proudly embraces both the transformative opportunities and challenges that AI presents to our society. The profound impact of AI on industries, economies, and societal structures necessitates a strategic approach. AI is revolutionizing the global landscape, causing transformative shifts and disruptions across numerous sectors. This unprecedented wave of innovation presents both opportunities and challenges, necessitating a strategic policy framework to harness AI's potential while mitigating its risks. Recognizing this imperative, the Government introduced the National Artificial Intelligence Strategy in 2020. Now, understanding the importance of adopting a comprehensive policy, the Government introduces the National Artificial Intelligence Policy, reflecting an unwavering commitment to navigate the AI landscape with wisdom, ethics, and prudence.

As 'Vision 2041' is being pursued, envisioning a 'Smart Bangladesh' across four pivotal pillars- Smart Government, Smart Society, Smart Economy, and Smart Citizen- AI emerges as a key enabler. To position AI development and deployment with these pillars, this policy identifies the corresponding key sectors where AI can have the most impact. It underscores the pivotal role of AI in realizing the national objectives, aligning with Sustainable Development Goals, and fostering innovation, economic prosperity, and inclusive development. To propel our nation forward in this technologically advanced world, AI is recognized as a critical tool capable of elevating various sectors, enhancing efficiency, and addressing complex challenges.

In this context, the National AI Policy is expected to address the legal, ethical, and societal implications of AI effectively and efficiently. Moreover, it places a significant emphasis on public awareness and education, enlightening citizens about AI and its far-reaching benefits. This policy stands as a testament to Bangladesh's unwavering commitment to leveraging AI responsibly and ethically, steering the nation towards a prosperous, inclusive, and sustainable future.

2. Vision and Objectives

2.1 Vision

Establishing Bangladesh as a pioneer in AI innovation and adoption, creating a Smart Bangladesh that leverages AI technologies for the well-being of all citizens, economic prosperity, and sustainable development.

2.2 Objectives

In alignment with the vision, this policy facilitates the transformation of 'Digital Bangladesh' to 'Smart Bangladesh', to achieve the following objectives:

2.2.1 To accelerate equitable economic growth and productivity through AI-driven optimization, forecasting, and data-driven decision-making.

2.2.2 To ensure efficiency and accessibility of public services through AI-enabled personalization.

2.2.3 To adopt data-driven policy making in every sector through AI-supported analytics and insights.

2.2.4 To nurture a skilled workforce that can utilize and build AI technologies through embedding AI in education and skills development who will meet the demands of the future.

2.2.5 To foster a culture of AI research and innovation through appropriate public and private funding.

2.2.6 To ensure development and adhere to a robust ethical framework by establishing regulatory measures that uphold human rights in AI development and deployment.

3. Key Principles for AI Implementation

Having a unified set of guidelines is crucial to direct all stakeholders toward the responsible use of AI. The development and use of AI technologies in Bangladesh shall be guided by the following principles that are consistent with Bangladesh's national values, visions, and goals:

3.1 Social Equity, Equality, and Fairness: Ensuring equitable access, equal opportunities, and inclusivity, and avoid bias in AI implementation to benefit all citizens regardless of religion, gender, ethnicity, geographic location, socioeconomic status, or physical abilities, by adhering to the latest user-centered design practices and accessibility standards.

3.2 Transparency and Accountability: Ensuring transparency and lines of accountability in the collection, storage, and usage of data in AI systems to ensure that the decision-making process is explainable and interpretable, allowing users and stakeholders to understand how AI arrives at decisions, and can challenge them.

3.3 Safety, Security, and Robustness: Ensuring that AI systems must be safe, ethical, secure from malicious use, robust against errors and biases, and potential risks be continually assessed and managed and when procuring technologies across all technology providers.

3.4 Sustainability: Promoting a circular economy approach, developing AI technologies that minimize their carbon footprint and promote green AI practices.

3.5 Partnership and Collaboration: Promoting local and global multi-stakeholder engagement to create a vibrant AI research, implementation, and risk-mitigation ecosystem and to leverage combined expertise and resources

3.6 Human-Centered AI: Ensuring AI technologies uphold the rule of law, human rights, dignity, values, and preferences, including human intervention scopes and human oversight in AI systems where necessary.

4. Priority Sectors for AI Integration

4.1 Smart Public Services, Governance, and Judiciary

4.1.1 AI systems will improve public service efficiency, ensure personalized service delivery, enhancing citizen-friendly services through automation and predictive processes.

4.1.2 AI technologies will be applied with a whole-of-the-government architecture by leveraging data from multiple departments to enhance service delivery, coordination, and decision-making.

4.1.3 AI systems will facilitate advanced digital ecosystem by enabling interoperability through data standardization and sharing protocols.

4.1.4 AI technologies will improve legal processes, streamline judicial efficiency, and enhance access to justice, legal information, and legal aid services.

4.1.5 AI tools will be deployed for comprehensive court management, including case processing, tracking, scheduling, legal research, document analysis, prediction of case outcomes, transcription, translation of proceedings, and providing legal recommendations to assist the court.

4.2 Telecommunication, Data Governance and Surveillance

4.2.1 AI technologies will strengthen telecommunication networks, digital infrastructure, data governance, data protection, and cybersecurity.

4.2.2 Responsible data sharing and interoperability will foster AI-driven decentralized data governance solutions.

4.2.3 AI platforms will strengthen the linkage of public and private data in a secure open data ecosystem, establishing a foundation for transparent and accessible data utilization.

4.2.4 Scalable and secure access to high-performance computing resources will be provided for training and building AI models, allowing organizations to rent or import necessary hardware.

4.2.5 AI-friendly digital infrastructure, including national computing power, distributed cloud systems, interoperable applications, and machine-readable legislation, will be developed.

4.2.6 AI systems will be implemented for comprehensive threat detection, enhancing national security, intelligence, and surveillance capabilities, including the analysis of various surveillance feeds for targeted detection, alert generation, and incident response.

4.2.7 AI systems will be employed to identify early warnings or emerging trends which may have negative implications through data amalgamation, source verification and hypothesis generation.

4.3 Agriculture

4.3.1 AI systems can be harnessed to improve agricultural productivity.

4.3.2 AI models will be used to predict market demand and supply to optimize agribusiness planning, including planting and harvesting schedules.

4.3.3 AI systems will be integrated to conduct critical analysis for precision agriculture techniques.

4.3.4 AI initiatives will monitor livestock and fisheries health for animal well-being and minimize economic risks.

4.3.5 AI technologies will be deployed to enhance crop protection by predicting disease outbreaks, and enabling early intervention measures to safeguard yields.

4.4 Environment, Energy, and Climate Change

4.4.1 AI systems can be harnessed to improve weather forecasts, environmental monitoring, and energy sustainability.

4.4.2 AI will be used in water resource management, including monitoring, and optimizing water supply, distribution, and conservation efforts.

4.4.3 AI systems will be integrated to conduct critical analysis for sustainable practices, climate-focused investment, and risk mitigation.

4.4.4 AI systems will optimize renewable energy production and distribution, promoting clean energy adoption and reduced reliance on fossil fuels.

4.4.5 AI technologies will provide personalized recovery strategies for various environmental zones and disaster-prone areas.

4.5 Smart Cities, Transportation and Mobility

4.5.1 AI-based urban planning will optimize infrastructure development, resource allocation, and support the development of sustainable and inclusive smart infrastructure for cities and villages.

4.5.2 AI-driven solutions will be implemented for efficient waste management, recycling systems and environmental monitoring to enhance sustainability.

4.5.3 Introduction of AI-driven public safety measures, including smart surveillance, will enhance security and emergency response capabilities.

4.5.4 AI systems will be used to optimize traffic flow, reduce congestion, and incorporate efficient traffic signal control and smart parking management.

4.5.5 AI systems will be used to enhance road safety, pedestrian safety and prevent accidents by analyzing traffic patterns and pedestrian behavior.

4.5.6 AI technology will integrate intelligent scheduling, real-time monitoring, and predictive maintenance in public transportation.

4.5.7 AI will promote the adoption of electric and autonomous vehicles.

4.6 Finance, Trade, and Economy

4.6.1 AI-powered solutions shall be used to foster economic growth, financial stability, and international trade.

4.6.2 AI shall be used for risk assessment and fraud detection in financial services.

4.6.3 AI systems for trade facilitation and supply chain optimization will boost international trade.

4.6.4 AI-driven platforms will be used for personalized financial advice, improving financial literacy and empowering citizens to make informed investment decisions.

4.6.5 AI-based solutions will facilitate credit scoring and lending, promoting financial inclusion.

4.6.6 Tax collection processes and revenue management shall be optimized through AI-driven solutions like tax compliance monitoring and fraud detection.

4.6.7 AI shall be used in revenue collection, automated reporting, data processing and analysis.

4.6.8 AI algorithms for predictive analytics will forecast revenue trends, facilitating better fiscal planning and resource allocation.

4.6.9 AI-driven economic forecasting, policy analysis, and impact assessment will inform evidence-based adjustments, facilitating data-driven decisions and policy formulation.

4.7 Manufacturing and Industrial Transformation

4.7.1 AI technologies will be adopted for predictive maintenance, process optimization, and quality control in the manufacturing and industrial sectors.

4.7.2 AI solutions will be implemented for inventory management, supply chain optimization and market dynamics.

4.7.3 AI-driven robotics and data analytics will be used for insights into productivity bottlenecks and manufacturing processes to increase efficiency, reduce waste, and improve quality.

4.7.4 AI will be used to simulate the socioeconomic implications of various industry policies within a macroeconomic framework.

4.7.5 Conversational AI will act as a mentor to existing and new workforce on the skills and technicalities of updated manufacturing processes.

4.8 Education, Skills, and Employment

4.8.1 AI solutions shall be used for enhancing education quality, skills development, and employment opportunities, and promoting critical thinking skills and problem-solving skills and competencies.

4.8.2 Adoption of AI in educational content, personalized learning, pedagogical approaches, and uniform assessment processes will be encouraged.

4.8.3 National campaigns will target educational institutions to establish and facilitate AI and data clubs.

4.8.4 Tailored training and skills programs will address the AI skills gap in the workforce.

4.8.5 AI systems will facilitate job matching and optimize employment opportunities through advanced algorithms and data analytics.

4.9 Healthcare and Wellbeing

4.9.1 AI-based medical diagnostics and predictive analytics will facilitate precise disease detection, chronic disease management, and personalized treatment.

4.9.2 AI will be used in improving telemedicine services, facilitating remote consultations, and real-time health monitoring.

4.9.3 AI systems will be used to streamline healthcare operations, including scheduling, resource allocation, inventory management, and data management.

4.9.4 AI-driven chatbots and virtual health assistants will improve patient monitoring, particularly in mental health and wellbeing, providing timely support and intervention.

4.9.5 AI-powered language translation services will overcome language barriers, ensuring that patients of diverse linguistic backgrounds receive necessary care and information.

4.9.6 AI will be used to detect fraudulent activities in healthcare billing and insurance claims.

4.9.7 AI technology will advance robot-assisted surgery, medical imaging, drug discovery, and issue critical drug dosage and interaction alerts to enhance patient-centered care.

4.10 Science, Technology, Research, and Innovation

4.10.1 Scientific research, technological innovation, and AI-driven breakthroughs shall be promoted in collaboration with academia and research institutions.

4.10.2 AI will be used to simulate laboratory experiments, and virtual labs will provide hands-on experience in scientific experiments to make science education more accessible and cost-effective.

4.10.3 AI will be used to extract, summarize, and analyze information from scientific literature, patents, and technical documents, making scientific research more efficient.

4.10.4 AI tools will track market needs, trends, and consumer sentiment, guiding funding decisions and fostering innovative product development based on data trends and consumer behavior.

4.10.5 AI tools will be employed to foster creativity and content innovation, optimizing designs for products, solving problems creatively, and bringing forth more innovations.

4.10.6 AI intervention will safeguard products by considering factors such as age, values, and preferences, enforcing restricted access to detrimental, harmful, offensive contents.

4.10.7 AI systems will be blended to ensure regulation, copyright protection, and privacy restriction.

5. AI Policy Implementation Approaches

5.1 Institutional Framework

The Information and Communication Technology Division, in collaboration with relevant ministries, industry, academia, and civil society, will take necessary steps to establish the institutional framework for AI policy implementation. It will be an independent National Artificial Intelligence Center of Excellence (NAICE) incorporating its existing offices or agencies. The National AI Center of Excellence shall be responsible for:

5.1.1 Coordination and continuous monitoring of AI initiatives using key performance indicators.

5.1.2 Evaluation of AI initiatives' social, economic, and environmental impacts, guiding adjustments for maximum benefits and risk mitigation.

5.1.3 Forming a multistakeholder High-Level National AI Advisory Council to guide the implementation of sectoral AI initiatives. (For a detailed list of members serving on the Advisory Council, please refer to Annexure 1.)

5.1.4 Facilitating collaboration and knowledge-sharing among various stakeholders, including government agencies, industry, academia, and civil society, to foster a holistic AI ecosystem.

5.1.5 Ensuring that any measures taken to regulate the technology are proportional to the risk and balanced to encourage innovation.

5.1.6 Forming a monitoring committee to govern the ethical conduct of AI initiatives in public and private sectors and ensuring measures against violation of ethical regulations.

5.1.7 Establishing mechanisms to ensure AI compliance with regulations and standards through regular audits and assessments.

5.2 Legal and Regulatory Framework

The legal and regulatory frameworks are necessary for AI policy implementation. For this purpose, the National Strategy for AI shall be updated encompassing the following:

5.2.1 A comprehensive framework outlining goals, policies, and initiatives for AI development, regularly updated to align with global innovations and advancements.

5.2.2 AI ethics guidelines/principles to provide guidance on how to develop and use AI in a responsible and ethical manner.

5.2.3 Data retention policies including the legal issues of data governance and ownership.

5.2.4 A standardization and certification guideline to standardize and certify standard AI practices, focusing on interoperability and data exchange.

5.2.5 Legal framework for ensuring data accessibility for researchers, entails the establishment of a national open data platform designed for this purpose.

5.2.6 Intellectual Property (IP) framework incorporating ownership rights, patents, and copyright regulations regarding AI models, AI-generated works, source code, and data.

5.2.7 The National Strategy for AI shall be updated every two years in accordance with the advancement of AI worldwide.

5.3 Implementation Plan for Ministries and Departments

The Information and Communication Technology Division will act as the policy enabler in general. Respective ministries and divisions shall act as the facilitators in their functional jurisdiction. They shall make plan for implementation of AI initiatives which shall contain the following:

5.3.1 Define the desired vision and time-specific goals from AI initiatives.

5.3.2 Identify key stakeholders including government agencies, private businesses, academia, research organizations, international stakeholder, start-ups, etc.

5.3.3 Analyze the current state, strengths, weaknesses, challenges, and opportunities of AI.

5.3.4 Make a roadmap and prepare specific action items of implementation.

5.3.5 Monitor and evaluate the implementation and adjust the plan as required.

5.3.6 The prioritization of AI initiatives shall be defined by the AI Advisory Council.

5.3.7 Develop and implement capacity-building programs to enhance AI literacy and skills.

5.3.8 Ensure flexible governance mechanisms to allow for emerging technological advancements.

5.4 Implementation Plan for Academia

The academia stakeholders shall follow the following implementation steps:

5.4.1 AI shall be integrated in academic curriculum and specialized programs exploring ethical, legal, and socio-economic implications.

5.4.2 Centers of AI research shall be built in all public and private universities.

5.4.3 Conferences, seminars, workshops, public awareness programs and other events will be organized on AI.

5.4.4 An AI research hub shall be established by the University Grants Commission to support, promote, and collaborate AI research, and provide training for students and professionals.

5.4.5 Research areas shall be identified that are rewarding for the private sector and co-investment can be facilitated.

5.5 Implementation Plan for Private Institutions, Businesses, and Industries

The following steps leads to the implementation plan for the Private Institutions, Businesses, and Industries:

5.5.1 All the stakeholders engaged in the ecosystem must align themselves with the national policy and strategy of AI.

5.5.2 Responsible AI practices shall be adopted for any public-sector procurement of AI systems and in the adoption of high-risk AI.

5.5.3 A 'single-window clearance' system will be implemented for AI-related projects in line with national objectives.

5.5.4 AI training programs will be developed in collaboration with industry players.

5.5.5 Private institutions, businesses and industries will provide internships and apprenticeships programs focused on AI for university students.

5.5.6 Private investment and public-private partnerships will be encouraged in AI research and development through recognitions, tax incentives and grants.

5.6 Investment and Funding

The strategies and mechanisms for attracting investments and allocating funds to support AI initiatives are as follows:

5.6.1 Government funding will be provided to support research and development in AI initiatives across the government ministries/institutions.

5.6.2 Corporate funding will be provided by businesses in terms of CSR or other means of investment.

5.6.3 Funding in AI initiative will be supported by tax benefits or tax incentives in the following cases:

    a. Research and development
    b. Education and training
    c. Technological infrastructure and DPI

Whether the initiatives taken fall into those categories will be determined by the National AI Center of Excellence.

5.6.4 Initiatives will be taken to attract local and foreign investments to catalyze AI research, development, and entrepreneurship.

5.6.5 Initiatives will focus on leveraging local and international partnerships to share best practices with similar nations working on AI technologies and products.

6. Challenges and Mitigation Approaches

6.1 AI Risks and Trustworthiness

To address the risks, safety, and security issues, by design the AI systems shall:

6.1.1 Act as enablers to inform human decision-making by including fundamental rights, human agency, and human oversight.

6.1.2 Make a fallback plan to ensure safety, accuracy, reliability, and reproducibility.

6.1.3 Prevent data to be used unlawfully or unfairly against users/systems.

6.1.4 Prevent from unintended direct/indirect prejudice, bias, and discrimination,

6.1.5 Require the datasets, processes, and algorithms to be documented in a standard way to allow for traceability and transparency.

6.1.6 Declare necessary methods/approaches for auditability of algorithms, data and design processes including negative impact reports, trade-offs, and redressal.

6.2 Risk Management Framework

The assessment list of AI systems for tackling challenges include:

6.2.1 Compulsory evaluation of AI-based products and services against the requirements and a transparent result log for necessary approval or revision.

6.2.2 The correct mix of competence, diversity and inclusion in profiles is mandatory for fair assessment and evaluation of AI systems.

6.2.3 The potential risks shall be assessed during the procurement process.

6.2.4 After periodical monitoring and critical assessment of AI initiatives, new risks shall be identified, and necessary measures shall be taken accordingly.

6.2.5 The government may set standards of risk management framework separately or in the National Strategy for AI.

6.3 Privacy

The following measures shall be considered during development and use of AI technologies:

6.3.1 Models shall be trained with minimal use of potentially sensitive or personal data.

6.3.2 Personal data usage will require valid consent, notice, and the option to revoke.

6.3.3 Privacy measures like encryption, anonymization, and aggregation will be applied.

6.3.4 Mechanisms shall allow users to flag privacy and data protection issues during data collection and processing. Dataset types and scopes shall be assessed by domain experts.

6.4 Data Security and Cybersecurity

The vulnerability of AI systems shall be addressed as follows:

6.4.1 Strengthening system integrity and addressing vulnerabilities, including hacking and manipulation, through rigorous assessment and validation of dataset types and scopes.

6.4.2 Promoting inter-agency and inter-administration cooperation to safeguard overall AI system security.

6.4.3 Establishing, defining, and testing governance procedures, fallback plans, and recovery strategies to activate alternatives in case of system failure.

6.4.4 Developing incident response protocols and conducting necessary training programs.

6.4.5 Conducting regular security audits and assessments to identify and address potential system weaknesses or vulnerabilities.

7. Policy Review

7.3.1 The National AI Policy will be regularly reviewed every three years to ensure its relevance, effectiveness, and alignment with emerging technologies and national goals.

7.3.2 Priority will be given to aligning the AI policy with other relevant policies during reviews.

7.3.3 Stakeholder engagement, including public consultations involving citizens, business associations, NGOs, academia, and industry, will be a key part of the review process.

7.3.4 Policy reviews will be responsive, ensuring adaptability to emerging challenges and opportunities in the AI landscape.

8. Conclusion

The policy underscores an unwavering commitment to building a Smart Bangladesh 2041 that thrives on innovation, empowers its citizens, and embraces the principles of ethics, transparency, and inclusivity. Within this policy framework, AI is considered a powerful tool that has the potential to reshape industries, revolutionize public services, and address some of our most pressing challenges. This policy stands as a testament to the advancement of AI for a prosperous, inclusive, and sustainable Bangladesh. With the collective efforts of government, industry, academia, and civil society, it is expected that Bangladesh will thrive as a pioneer of innovation and progress in AI globally.

Annexure

For carrying out the purposes of this policy, the National AI Advisory Council (proposed) shall include Mr. Sajeeb Wazed, Honorable ICT Advisor to the Prime Minister, as the Advisor; a Chairperson and the following members, namely:

1. Minister, State Minister or Deputy Minister of the Ministry of Posts, Telecommunications and Information Technology (Chairperson)
2. Secretary, Posts and Telecommunication Division
3. Secretary, Information and Communication Technology Division
4. Secretary, Public Security Division
5. Foreign Secretary, Ministry of Foreign Affairs
6. Inspector General of Police, Bangladesh Police
7. Chairman, BTRC
8. Director General, National Telecommunications Monitoring Center
9. Director General, National Cyber Security Agency
10. CEO, Agency to Innovate (a2i)
11. Representative, Legislative and Parliamentary Affairs Division
12. Managing Director, Startup Bangladesh Limited
13. Representative, Bangladesh Association of Software and Information Services (BASIS)
14. Representative, Bangladesh Association of Contact Center and Outsourcing (BACCO)
15. Representative, Association of Mobile Telecom Operators of Bangladesh (AMTOB)
16. Academia representative(s)
17. Director General, Department of ICT (Member Secretary)

Proposed Terms of Reference (ToR) of the National AI Advisory Council:

a. The Advisory Council shall lead the National AI Centre for Excellence in accordance with its role defined by the legal framework of this policy to establish a holistic AI ecosystem.

b. The Advisory Council shall coordinate with the concerned stakeholders from government, industry, academia and such, to ensure the developed AI technologies abide by the policy's key principles.

c. The Chairman of the Advisory Council shall be able to co-opt the members of the Council as deemed necessary.

d. The Director General, Department of ICT/Member Secretary shall provide the secretarial service to the National AI Advisory Council.

NATIONAL
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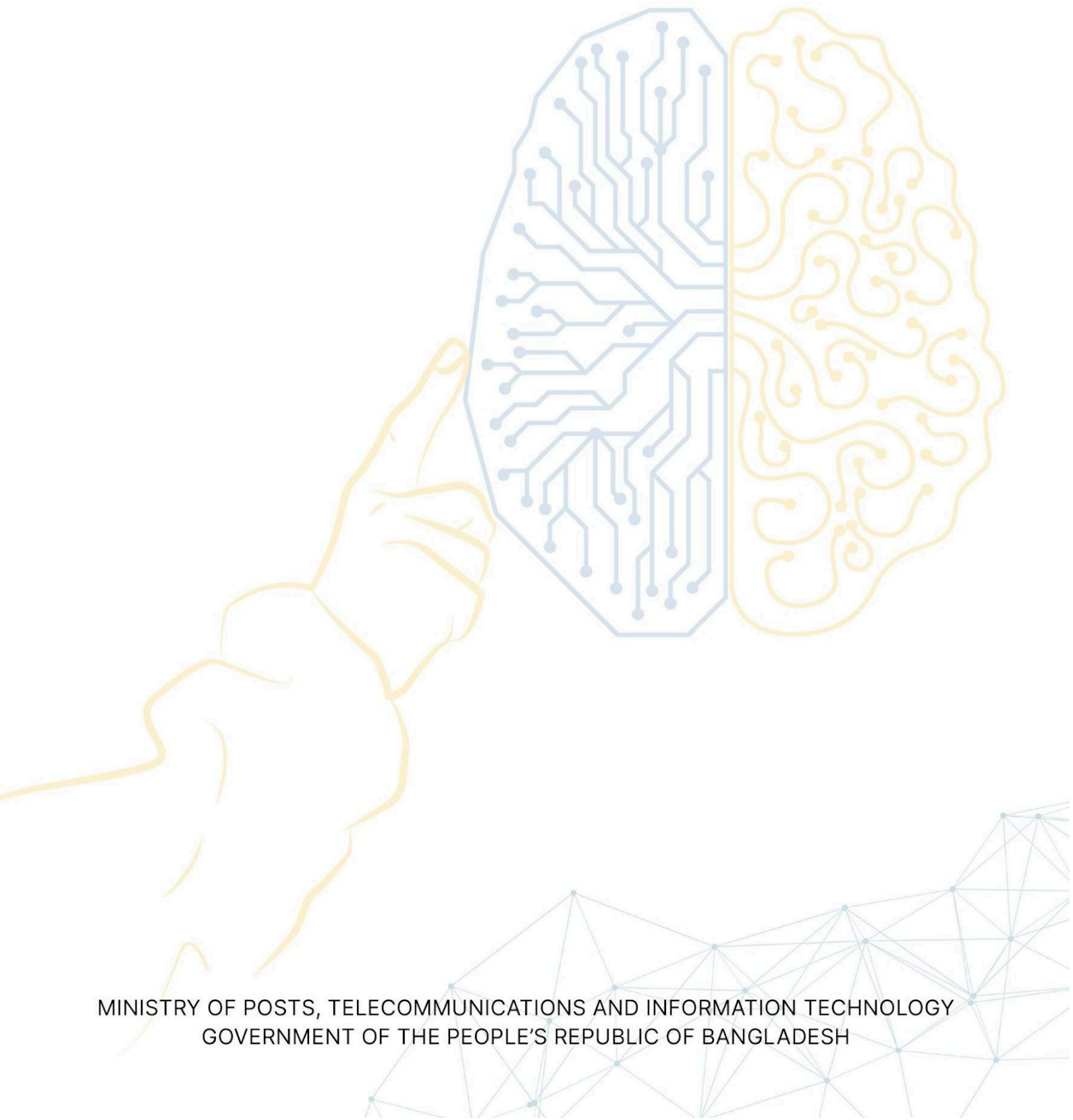
Basic Information

Country Name: Bangladesh

Policy Publication Year: 2024 (Draft)

Socio-Economic Context:

Bangladesh is classified as a
lower-middle-income country by the World
Bank, with a rapidly growing economy
primarily driven by the textile and garment
industry, agriculture, and remittances from
overseas workers. The country has made
significant strides in digital
transformation, particularly through the
"Digital Bangladesh" initiative, which aims
to leverage technology for socio-economic
development. However, challenges remain,
including a need for enhanced
infrastructure, education, and skills
development to fully harness the potential
of emerging technologies like Artificial
Intelligence (AI).

Policy Type: National Artificial
Intelligence Policy

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1. Key Objectives and Strategies in the
Policy

Key Objectives:

- Establish Bangladesh as a pioneer in AI

innovation and adoption.

- Transform 'Digital Bangladesh' into 'Smart Bangladesh' by leveraging AI technologies.

- Accelerate equitable economic growth and productivity through AI.

- Ensure efficiency and accessibility of public services via AI.

- Foster a skilled workforce capable of utilizing AI technologies.

- Promote a culture of AI research and innovation.

- Develop a robust ethical framework for AI deployment.

Strategies:

- **Sector-Specific Focus:** The policy identifies priority sectors for AI integration, including:

- Smart public services and governance

- Telecommunication and data governance

- Agriculture

- Environment and climate change

- Smart cities and transportation

- Finance and trade

- Manufacturing

- Education and skills development

- Healthcare

- Science and technology research

- **Implementation Approaches:**

- Establish an independent National AI

Center of Excellence (NAICE) for

coordination and monitoring.

- Develop a legal and regulatory framework

for AI ethics and data governance.

- Create partnerships between government,

academia, and the private sector for AI

initiatives.

- Invest in education and training programs

to build AI literacy and skills.

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2. Comparative Analysis with

Socio-Economic Countries

Similar Socio-Economic Countries:

- **India:** Both countries aim to leverage

AI for economic growth and societal

benefits. India has established initiatives

like the National AI Strategy, focusing on

sectors like healthcare and agriculture,

similar to Bangladesh's approach. However,

India has a more developed framework for AI

ethics and governance.

Higher-Income Countries:

- **Germany:** The German AI Strategy

emphasizes ethical AI development and

public-private partnerships, with significant funding for research and development. Bangladesh could learn from Germanys structured approach to funding mechanisms and regulatory frameworks to enhance the effectiveness of its AI initiatives.

Lower-Income Countries:

- **Rwanda:** Rwanda's National AI Policy emphasizes building AI literacy and ethical frameworks while addressing local challenges. Bangladesh can adopt Rwanda's community-focused approaches to ensure inclusivity and engagement in AI development, leveraging local resources and capacities.

Key Insights:

- **Objectives and Strategies:** Bangladesh's policy aligns with global trends in AI adoption but could benefit from more explicit ethical guidelines and funding strategies seen in higher-income countries.

- **Priorities and Funding:** Bangladesh needs to establish clear funding mechanisms to support its ambitious AI initiatives, similar to how Germany allocates substantial resources for AI research.

- **Approaches and Implementation:** The

collaborative models used by Rwanda can

serve as a blueprint for Bangladesh to

engage local communities and stakeholders

effectively.

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3. Gaps and Areas of Improvement

Benchmarking Against OECD Guidelines:

- The policy lacks detailed frameworks for

monitoring and evaluation, which are crucial

for ensuring accountability and transparency

in AI initiatives.

- There is insufficient emphasis on data

privacy and protection, which are critical

in the context of AI applications.

Incorporation of Comparative Insights:

- The policy should include specific

mechanisms for public participation in AI

governance, as seen in Rwanda, to enhance

trust and accountability.

- Ethical considerations need to be more

robustly defined, particularly around data

usage and algorithmic bias.

Inclusivity and Workforce Development:

- The policy should explicitly target

marginalized communities to ensure equitable

access to AI technologies, drawing lessons

from successful initiatives in India and
Rwanda.

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4. Recommendations for Policy
Improvement

Adopting Best Practices:

- Incorporate successful strategies from
India and Rwanda, such as community
engagement and targeted educational
programs, to build a skilled workforce.

Enhancing Ethical Frameworks:

- Strengthen ethical guidelines by
including comprehensive data privacy
measures and bias mitigation strategies,
inspired by frameworks from Germany and the
EU.

Fostering International Cooperation:

- Establish partnerships with international
organizations and countries with advanced AI
ecosystems to facilitate knowledge exchange
and capacity building.

**Resource Allocation and Funding
Mechanisms:**

- Develop a clear funding strategy for AI
initiatives, similar to the structured
funding mechanisms in Germany, to ensure
sustainable investment in AI research and

development.

Scalable and Sustainable Approaches:

- Focus on scalable solutions that are

resource-efficient, drawing from practices

in lower-income countries like Rwanda, to

maximize the impact of AI initiatives.

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5. Strengths and Innovative Approaches

Unique Strategies:

- The policy emphasizes a human-centered

approach to AI, which aligns well with

Bangladesh's socio-cultural context,

promoting inclusivity and ethical

considerations.

- The focus on integrating AI across

various sectors highlights the government's

commitment to leveraging technology for

comprehensive national development.

Forward-Thinking Approaches:

- Establishing a National AI Center of

Excellence demonstrates a proactive strategy

to foster innovation and collaboration among

stakeholders, positioning Bangladesh as a

leader in AI within the region.

This analysis provides a comprehensive

overview of Bangladesh's National Artificial

Intelligence Policy 2024, offering insights

into its objectives, strategies, and areas

for improvement while drawing comparisons

with other countries. By addressing

identified gaps and implementing recommended

changes, Bangladesh can enhance its AI

policy framework to better serve its

citizens and achieve its vision of a Smart

Bangladesh by 2041.